A Model Explaining Security Behavior of Employees in Cyberspace

Abstract: The information security community has come to realize that the weakest link in a cybersecurity chain is human behavior. Based on Protection Motivation Theory and an extensive literature review on behavioral information security, recently conducted a large-scale survey study to investigate the cybersecurity behavior and beliefs of employees. 579 US employees from various organizations and companies completed an online survey with 89 items carefully designed by six experts in cybersecurity, information technology, psychology and decision science. As the result, we identified factors that contribute to employees’ cybersecurity behavior. Our measures of cybersecurity beliefs explained 43% of the variance in self-report cybersecurity behavior. We are currently building a theoretical model to understand how these factors affect employees’ self-reported security behavior.